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ABSTRACT

The third phase of a competency-based industrial teacher education project was designed to implement an inservice competency-based industrial teacher education program. (Phases I and II had identified professional competencies needed by industrial education instructors and pilot-tested a preservice workshop.) Seventeen non-certified instructors were aided in mastering the inservice competencies by fifteen local resource persons and six industrial teacher educators working cooperatively with a series of professional vocational teacher education modules. Competency rating instruments were devised and the seventeen instructors were rated by students and educators on fifty-seven preservice and inservice competencies. Instructors were generally rated as effective, and it appears that a field-based, competency-based approach is a viable alternative to the traditional university approach to industrial teacher education. However, it was concluded that a more effective system of evaluating instructors' mastery of competencies is needed, and that the three phases did not fully address the issue of competency-based vocational education and that additional research is needed in this area. Data tables are interspersed throughout the report and rating forms used in the project are appended. (BL)

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Final Report
Project No. 6-4002
From January 1, 1977 to June 30, 1977

Competency-Based Industrial Teacher Education Project
Phase III: Inservice Program

BEST COPY AVAILABLE

University of South Florida
Adult & Vocational Education
Tampa, Florida

Project Director:
William E. Blank

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CE 013 180

TABLE OF CONTENTS

BACKGROUND. 1

Phase I, 1974-75
Phase II, 1975-76

PHASE III OBJECTIVES. 17

METHODOLOGY 18

Participants
Framework for Inservice Phase
Evaluation of Phase III

FINDINGS AND DISCUSSION 24

Rating of Instructors by Students
Comparison of Instructor Ratings by Teacher Educators and Resource Persons
Competency Importance Ratings

CONCLUDING STATEMENTS 36

APPENDICES. 37

PREFACE

This report describes the activities and outcomes of the third phase of a competency-based industrial teacher education project conducted during 1976-77. This third phase is based upon and is a logical extension of two earlier phases. Phase I, conducted during 1974-75, focused on identifying entry level professional competencies needed immediately by the newly employed industrial education instructor in Florida. Phase II (1975-76) was aimed at identifying additional competencies beyond entry level and also involved developing and conducting a pilot preservice workshop to prepare newly employed instructors with the entry level competencies identified during Phase I.

Phase III, described in this report, was designed to implement an inservice competency based industrial teacher education program for the participants of the pilot preservice program conducted as a part of Phase II. The inservice program developed during Phase III was designed to be competency-based and field centered. Data gathered during Phase III may prove valuable to others who are developing and implementing competency-based vocational teacher education programs in Florida and the United States.

Although administered through the University of South Florida, Phase III, as well as earlier phases, was a statewide effort. Participating in the project were industrial teacher educators from UWF, FSU, UNF, FAMU, FTU and FIU. Also participating were representatives from the Dade and Pinellas County pilot industrial teacher certification projects and representatives from FAITE and COTE. Providing valuable assistance throughout the project were members of the Division of Vocational Education including the Industrial Education Program and the Staff Development and Certification Sections. Appreciation is extended to the 17 industrial education instructors who participated and to their local resource persons, administrators and supervisors.

William E. Blank

William E. Blank, Project Director

BACKGROUND

Industrial education is unique among the vocational program areas since the majority of instructors are recruited directly from industry and begin teaching with little or no previous professional preparation. This situation often results in several undesirable outcomes:

1. Instructors begin teaching with little professional preparation in essential entry level teaching and related competencies.

2. Turnover among newly employed industrial education instructors is high.

3. Many instructors must develop instructional techniques and curriculum materials by trial and error.

4. Many instructors become frustrated after finding that they are not adequately prepared professionally for the job of teaching.

Although industrial teacher education programs in Florida's state universities have responded well to this problem by providing excellent certification courses for these instructors, the need has been identified for a new approach to aid newly employed industrial education instructors bridge the gap between their trade and the teaching profession. The need has been identified for an alternative industrial teacher education (and certification) approach that:

1. Is based entirely on validated professional competencies important to effective teaching and learning.

2. Can aid instructors in mastering essential entry level "survival skills" before entering the classroom or laboratory.

3. Is designed to aid instructors in mastering additional competencies when they are needed most.

4. Focuses on the day to day professional needs of teachers.

5. Allows instructors to demonstrate their mastery of competencies in an actual school setting.

6. Is tailored to meet the professional needs of individual instructors.

Representatives for the Industrial Education Program within the Division of Vocational Education and Florida State University's Vocational Education Program met in 1974 to begin exploring the possibilities for developing competency based industrial teacher education (CBITE) programs in Florida that would better meet the professional needs of instructors.

Florida State University secured a grant from the Division of Vocational Education to begin the development of a competency-based industrial teacher education program designed to identify the professional competencies needed by instructors and to develop a vehicle for delivering instruction in those competencies. The following sections contain a brief description of Phase I (1974-75) and Phase II (1975-76) of the competency-based industrial teacher education project to provide the reader with background information leading up to Phase III (1976-77) which is reported in detail in the remainder of this report.

PHASE I - 1974-75

Phase I was conducted during 1974-75 and was directed by Dr. Robert E. Andreyka, formerly of FSU. The reader is encouraged to refer to the project final report for additional information:

> Andreyka, R.E. and Briley, T.S. Competency-based teacher education for industrial education teachers. Phase I: Competency and criteria identification and validation for preservice education. Tallahassee, Florida. Florida State University, 1975.

Stated objectives for Phase I were:

1. To establish an advisory committee representing all segments of industrial education, to guide the project.
2. To establish the feasibility of a CBITE program.
3. To gather existing CBITE materials.
4. To identify entry level competencies for industrial education instructors.

The following activities were utilized to meet the objectives of Phase I.

Framework of CBITE

The project staff documented the need for a CBITE program in Florida and established an overall framework in which a CBITE program might be developed.

Advisory Committee

A statewide "working" advisory committee was formed to guide the overall direction of the project. Included were representatives of all industrial education programs in the state university system, representatives from the Board of Regents, the Division of Vocational Education, Industrial Education Section, the Certification Section-DOE, and others. See Figure 1 for members of the 1974-75 advisory committee.

FIGURE 1

PHASE I (1974-75) CBITE ADVISORY COMMITTEE

Dr. Robert E. Andreyka,
Program Leader
Vocational Education
Florida State University
Tallahassee, Fl.

Dr. Douglas McBriarty,
Personnel Director
Pinellas County Schools
Clearwater, Fl.

Dr. Patricia Lutterby
Board of Regents
Tallahassee, Fl.

Dr. Thomas S. Briley
CBTE Project Director
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State Dept. of Education
Tallahassee, Fl.

Dr. Samuel E. Russell,
Chairman
Department of Vocational and
Technical Education
University of North Florida
Jacksonville, Fl.

Dr. H. C. Beacham
Industrial Education
Florida A&M University
Tallahassee, Fl.

Dr. Bob Paugh
Department of Industrial Education
Florida Technological University
Orlando, Fl.

Dr. Warren Leffard
University of West Florida
Vocational Education
Pensacola, Fl.

Dr. Henry Ziel,
Chairman
Florida International University
Miami, Fl.

Mr. Paul Kretzschmar,
Coordinator
Performance Based Vocational
Teacher Training Program
Dade County Schools
Miami, Fl.

Dr. Raymond Hill, Coordinator
Industrial & Technical Education Program
University of South Florida
Tampa, Fl.

Review of Previous Research

A review of the literature was conducted to identify previous research and related projects aimed at identifying essential competencies for vocational instructors. Previous projects were identified at Ohio State University, University of West Florida, University of Missouri, University of Georgia, Illinois State University, State University of New York, University of Houston, University of Toledo, Temple University, Weber State College and others. Other documents reviewed were received from AACTE, Dade County, Florida State Department of Education, Pinellas County, American Home Economics Association, Minnesota, New Jersey and others. A thorough description of these projects and documents may be found in the final report.

Of the previous research projects reviewed, one conducted by the Center for Vocational Education at Ohio State University appeared to have implications for the Florida CBITE project. The Center identified 384 specific performance elements essential to vocational instructors. These 384 performance elements were then incorporated into 100 competency statements. Instructional modules were then developed based on these 100 competencies.

The 384 performance elements were identified in a national study involving over 1000 vocational instructors as well as a panel of national leaders in the field of vocational education. Methodology utilized to identify these performance elements included a task analysis of instructors, introspection and interview techniques and a critical incident study. Professional competencies identified by the Center as being essential to all vocational instructors, including industrial, were utilized as a basis for the Florida CBITE project. It was the opinion of the CBITE project staff that these 384 performance elements and 100 competency statements were valid professional competencies and could be utilized as a basis for the Florida project.

Identification of Preservice Competencies

Although the 100 competencies identified by the Center were found to be important for all vocational instructors, (including industrial) competencies within the 100 that were most essential to a beginning industrial education instructor needed to be identified. Also, additional essential competencies not included in the 100 needed to be identified.

Sort Procedure

Using the Ohio competency statements as a basis, the advisory committee identified tentative entry level competencies for newly employed industrial education teachers in Florida. This was accomplished through a sort procedure which required that at least twenty competencies be placed in each of four groups by advisory committee members; preservice level, Rank III standard certificate level, Rank II post standard certificate level, and not applicable. Prior to the initial advisory committee sort, two pre-sorts were conducted using FSU students to test the procedure.

Validation Workshop

Prior to this point, identification of competencies vital to effective instruction in industrial education was accomplished through the combined efforts of persons other than practicing teachers in the field. Although the compiled information from similar projects had been helpful to the advisory committee and CBTE staff, direct input from those actually acting in an administrative and/or teaching capacity was deemed necessary to provide vital information relative to preservice teacher needs.

A workshop was conducted at the University of South Florida June 16-20, 1975, by Florida State University for evaluation and validation of the existing list of competencies and tentative assessment criteria through the use of teams consisting of one teacher educator, one vocational administrator or supervisor, and two industrial education teachers with one to three years experience. These teams included administrative, supervisory, or teacher representatives from two of Florida's on-going CBTE programs (Pinellas County and Dade County).

Major changes recommended by the participants were incorporated in the final competency and criteria listing. The competencies and criteria were reviewed and discussed during small group evaluations and in oral reports given to the entire body at the end of the workshop.

Preservice Competencies

Based on input from workshop participants the original list of preservice competencies and assessment criteria was revised. Figure 2 lists these preservice competencies in seven categories that resulted from the validation workshop. Also listed in Figure 2 are assessment criteria that might be utilized to evaluate mastery of the competencies.

FIGURE 2

PRE-SERVICE INDUSTRIAL EDUCATION
TEACHER COMPETENCIES AND CRITERIA

A. Human Relations Competencies

1. Determine Needs and Interests of Students
   a. Develop a record file on each student (student information sheet, data sheet, etc.).
   b. The needs of students were addressed through group discussion and individual conferences.
2. Relate to Students as Individuals
   a. Socio-economic/cultural school community characteristics were identified.
   b. Patterns of human development were emphasized.
   c. Potential student problems were recognized.
   d. Community personal services were identified.
3. Assist Students in Developing Self-Discipline
   a. Teacher will assist students in understanding class/laboratory rules and regulations.
   b. Student resistance to peer pressures was emphasized.
   c. Students were assisted in setting objectives to attain goals.
   d. Students were shown how to manage time effectively.
   e. Students were assisted in coping with success and failure experiences.
4. Employ Reinforcement Techniques in Interpersonal Relations
   a. Identify potential individual personal problems.
   b. Alternatives to achieve objectives in interpersonal relations were identified.
5. Demonstrate the Ability to Communicate with Students, Other Teachers, Administrators, and Laymen
   a. Student-parent conferences were conducted, when appropriate.
   b. Examples of how to participate in and contribute to meetings with students, other teachers, administrators, and laymen were observed.
   c. Time for conferences with students, other teachers, administrators, and laymen was established and communicated.
   d. Communication differences among students, other teachers, administrators and laymen were identified.
6. Demonstrate an Understanding of Working Interpersonal Relations Within Educational Organizational Structures
   a. Official and unofficial communication patterns in the school and district were identified.
   b. Follow-up personal contacts within the organizational structure were initiated.

B. Instructional Planning Competencies

1. Identify Instructional Objectives
   a. The teacher understood and used V-TECS materials.
   b. The teacher understood that the program skills are derived from detailed job analysis profiles.
   c. Necessary tasks were identified and updated from job analyses.
   d. Objectives were written from V-TECS materials and job analyses information.
2. Develop the Instructional Lesson Plan
   a. An outline was prepared.
   b. The techniques, methods, and aids to be used were identified.
   c. The four-step model was used.

C. Teaching Methods Competencies

1. Select an Appropriate Teaching Method
   a. The size of the class (group) was considered.
   b. The objective(s) of the lesson was (were) considered.
   c. Student abilities were considered.
2. Employ Oral Questioning Techniques
   a. Concise oral questions were used to encourage student participation and maintain continuity of ideas.
   b. Each student was given the opportunity to participate, based on his ability and past experience.
   c. The teacher paraphrased or repeated the students' answers.
   d. Attention and consideration were given to each student's response.
3. Present Information Through an Illustrated Talk Using Models, Real Objects, Chalk Boards, and Overhead Projectors
   a. The decision was made whether to use a model, real object, chalkboard, or overhead projector.
   b. Specific features of the model were accented through the use of color, texture, and moving parts.
   c. Complex illustrations were clear and legible and were shown in a step-by-step manner.
   d. All students were able to see the illustrations and read the writing.
4. Conduct Group Discussions
   a. Students were involved in determining the ground rules for group discussion.
   b. The size of the group was appropriate to the topic of the discussion.
   c. The topic of the discussion was introduced in an appropriate manner.
   d. Direction and interest was maintained by seeking out student participation, interjecting questions, and recognizing non-verbal cues.
   e. Important points were summarized in closing.
5. Present a Related Lesson
   a. Appropriate related information was identified and selected.
   b. The student was prepared for the related lesson.
   c. The related lesson was presented to the student.
   d. The student was given the opportunity to apply the related information.

6. Present a Manipulative Lesson
   a. All equipment, tools, and materials were ready for use.
   b. The purpose of the demonstration was established (preparation).
   c. Each step of the demonstration was stressed, explained, and performed in proper sequence (presentation).
   d. Students were required to apply their understanding of the demonstration (application).
   e. Students were required to perform on their own (testing).
   f. The demonstration was visible to all students (presentation).
   g. Critical safety points of operation were emphasized for the students (presentation).
   h. The teacher used verbal and non-verbal cues to evaluate student understanding.
   i. Ample opportunity was provided for student questions during and after the Demonstration.
7. Direct Problem Solving Activities
   a. The purpose of the assignment to the specific job was explained.
   b. The assignment was based on the students' needs, interests, and abilities.
   c. Students were involved in determining methods for carrying out the assignment.
   d. Suitable instructions were given with time for student questions.
   e. Appropriate facilities and equipment were made available.
   f. The method for evaluating student achievement was explained.

D. Shop/Classroom Management Competencies

1. Organize and Maintain the Vocational Laboratory
   a. Laboratory equipment was scheduled and arranged for maximum utilization by students.
   b. The layout of the laboratory was arranged to simulate as closely as possible, the occupational environment.
   c. An appropriate example equipment list was provided.
   d. The laboratory work and storage areas were arranged to facilitate student work performance.
   e. A fair system for student cleaning and maintaining of the laboratory was cooperatively established.
2. Establish and Maintain a Filing System
   a. The teacher was provided with an organized (e.g., color coded) system for filing.
   b. A set of categorized file dividers was provided.
   c. Examples of required records were provided to assist in collecting pertinent student data.
   d. The report forms were coded in a manner compatible with the filing system.
   e. The teacher identified the several purposes of a filing system, e.g., occupational information, instructional material, reports.
3. Manage Equipment and Supplies in the Vocational Laboratory
   a. An inventory of tools, supplies, and equipment was maintained.
   b. A system for budgeting, ordering, repairing, and servicing tools, and equipment was established.
   c. A system for storage, security and student check-out of equipment and supplies was developed.

4. Establish and Maintain a Student Progress Record
   a. An example progress chart was provided and reviewed.
   b. A confidential student progress report was established, maintained, and reviewed with each student periodically (each six weeks).
5. Provide for the Safety/First Aid Needs of Vocational Students
   a. The physical environment, (heat, light, and ventilation) was properly controlled.
   b. Each student was instructed in the safe use of each piece of equipment (and to include the wearing of safe attire).
   c. Rules for safe use of each piece of equipment were displayed in vicinity of the equipment.
   d. Local policy regarding first aid, safety procedures, and medical referral was provided.
   e. Safety guards, electrical grounds, and other protective devices were installed on all hazardous equipment.

E. Evaluation Competencies

1. Identify or Assess Student Performance in the Classroom
   a. Decisions were reached as to which type or form of evaluation procedure was needed to assess student performance.
   b. The teacher constructed several objective tests (multiple choice, true-false, and matching) to assess student classroom performance and prepared a scoring key for each test.
   c. The teacher identified effective performance procedures to be used in assessing classroom performance.
2. Assess Student Performance in the Shop/Laboratory
   a. A model or explicit criteria was developed.
   b. A process performance scale was developed and discussed with the students.
   c. Completed process and products were evaluated using the model or explicit criteria and the evaluation scale was discussed with the students.
   d. Teachers were made aware of the importance of informing students promptly of their evaluation of processes and products.
3. Determine Student Grades in the Vocational Offering
   a. A recording form was utilized to incorporate essential data for the students' classroom instruction and laboratory experiences.
   b. The grade was determined for the students' performance on related instruction.
   c. The grade was determined for the students' performance on laboratory experiences.
   d. The grade for each was weighed to determine its proper relationship to the total grade.
   e. The total grade for the student was determined by averaging the weighed grades.
   f. Evaluations were used in assessing programs, identifying student progress and setting goals.
   g. Provisions were made for students who could not achieve performance standards.
4. Develop an Awareness of Accountability in Terms of Job Placement, Continued Training and Follow-Up

   Note: This competency was identified during the validation workshop. Consequently, criteria remains to be established.

F. Professional Development Competencies

1. Demonstrate an Understanding that Industrial Education Courses are Established and Continued Based on Labor Market Needs and Other Economic Conditions
   a. Summaries of Bureau of Labor statistics data were reviewed to identify national labor market trends.
   b. Local industry was surveyed to determine community labor needs.
   c. The teacher related national labor trends and local labor needs to the industrial education program.
2. Demonstrate Knowledge of the Various Professional Organizations and the Services They Provide for the Beginning Teacher
   a. Pertinent professional organizations were identified.
   b. Organizational services for beginning teachers were outlined.
   c. Methods of obtaining help for beginning teachers were discussed.
   d. Dress appropriate to the profession was displayed.
3. Demonstrate Awareness of District and School Policy and Organizational Structure
   a. The teacher was provided with information indicating local organizational structures.
   b. The teacher developed a simplified organizational chart for points of frequent contact from the above materials.
   c. The teacher correctly identified statements which were consistent with district and school policy.

G. Student Organizations

1. Develop an Awareness of VICA and Other Groups
   a. A VICA handbook (kit) was provided for new teachers.
   b. An overview of the student organization program was given.
   c. A list of local VICA contact people was provided.
   d. The advantages and disadvantages of VICA for the particular class were listed and discussed.

PHASE II 1975-76

Phase II, also directed by R.E. Andreyka of FSU, was conducted in 1975-76. Refer to the following report for addition information:

> Andreyka, R.E., Blank, W.E., and Clark, E.E. Exemplary Competency-based vocational teacher education project: trade and industrial education component. Tallahassee, Florida. Florida State University, 1976.

Phase II was aimed at meeting four objectives:

1. To plan and organize a competency-based preservice industrial program to provide instruction in the preservice competencies identified during Phase I.

2. To plan a competency-based inservice program for the continued staff development of industrial education teachers including the identification of additional inservice competencies beyond those at entry level identified during Phase I.

3. To establish a university level competency-based teacher education program.

4. To determine alternatives for funding competency-based teacher education.

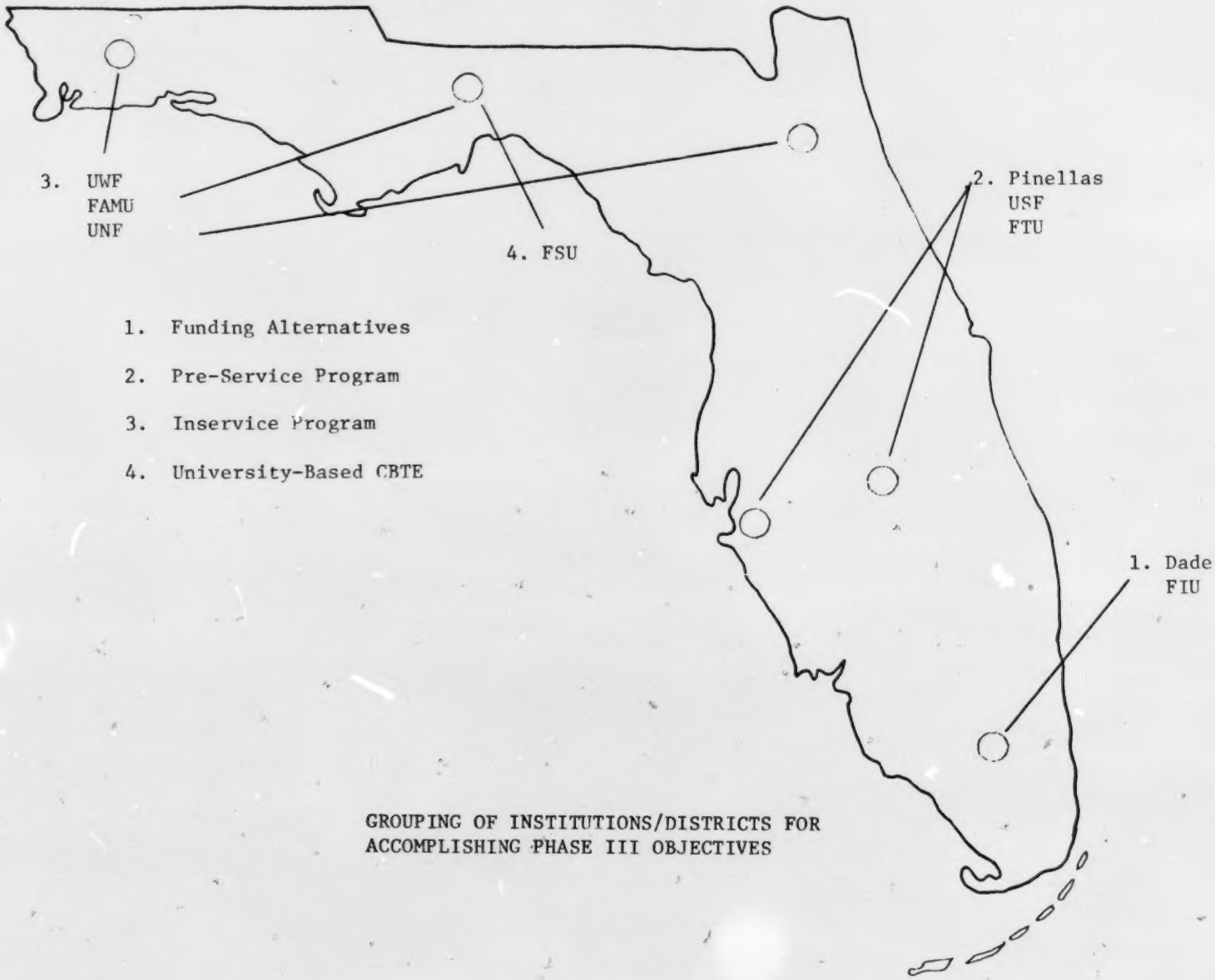
Figure 3 shows how various institutions represented on the advisory committee were grouped into four regional committees in order to meet the four objectives of Phase II.

Preservice Program (Pinellas, USF, FTU)

The entire advisory committee refined the preservice competencies identified in Phase I. These competencies formed the foundation of a pilot competency-based industrial teacher education program. Dr. Robert Paugh, Florida Technological University who chaired the Preservice Program, Regional Committee was charged with the responsibility to further develop these competencies into a planned, organized competency-based preservice industrial teacher education workshop. The vehicle employed for carrying out this charge was the establishment of three mini conferences held in Lakeland and Orlando.

The preservice program regional committee developed a three week preservice workshop designed to equip a selected group of newly employed industrial education instructors in the entry level preservice competencies identified during Phase I. The preservice workshop was held at FTU from July 26, 1976 through August 13, 1976. Seventeen newly employed industrial education instructors attended. These teachers were from various counties throughout Florida. The preservice workshop was designed to give these

FIGURE 3



GROUPING OF INSTITUTIONS/DISTRICTS FOR
ACCOMPLISHING PHASE III OBJECTIVES

17 instructors an awareness of and practice in performing the pre-service entry level competencies.

Inservice Program (UWF, FAMU, UNF)

The advisory committee further refined the preservice competencies during 1975-76 as well as validated the additional inservice (Rank III) competencies. Inservice competencies tentatively identified during Phase I served as the basis for this activity.

Inservice competencies were validated by the inservice program regional committee composed of three teacher educators, three industrial education instructors and three administrators of industrial education as well as the entire advisory committee.

Figure 4 lists the final compilation of both the preservice (Phase I) and inservice (Phase II) competencies. To the left of the competency statements in Figure 4 is an indication of the level (awareness, practice, or real teaching situation) each competency was carried in the preservice workshop and inservice program (Phase III).

Funding Alternatives (Dade, FIU)

Representatives from Dade County and FIU comprised the regional committee charged with the responsibility to begin exploring funding alternatives for CBITE programs in the future. It was determined that the present FTE structure in the university system was inappropriate for funding CBITE programs. Among possible funding sources for CBITE programs that were explored were direct grants from USOE or DOE for pilot programs, the five dollar per student FTE staff development funds, teacher center funds and reallocated university college of education funds.

University Based CBTE Program (FSU)

The fourth regional committee focused on developing and implementing a pilot CBITE program at FSU that might serve as a model for the implementation of other competency-based vocational teacher education programs throughout the state. Serving on the university level regional committee were industrial teacher educators from FSU, representatives from the university (FSU) administration, an experienced industrial education instructor, a local administrator and supervisor of vocational education and a representative from the certification section, DOE.

Based on the preservice competencies identified during Phase I and the inservice competencies being validated during Phase II, the university regional committee developed a pilot CBITE program for implementation at FSU. The final report for Phase II describes this pilot university based program in detail, however, essential elements are listed below:

Figure 4

Competencies Included in CBITE Program
For Florida's Industrial Teachers

Preservice A	Preservice P	Preservice R	Inservice A	Inservice P	Inservice R	Item	Competency
							Category A[a]: Orientation To Vocational Teaching - designed to give the instructor a brief overview of vocational teaching.
X						1.	Aware of the purpose of this teacher education program.
X						2.	Aware of the purpose and principles of Vocational Education.
X						3.	Aware of the purpose and scope of Trade and Industrial Education.
X						4.	Aware of teacher responsibilities.
X						5.	Aware of the steps in planning the instructor's work.
X						6.	Aware of district and local school policy and organizational structure.
X						7.	Aware of the student vocational organization.
X						8.	Aware of opportunities for professional growth, i.e., professional organizations, etc.
							Category B: Preparation for Instruction - principles and techniques of planning and organizing instructional materials and preparing and motivating students to learn.
			X	X	X	1.	Analyze an occupation.
X				X	X	2.	Write and sequence student performance objectives
			X	X	X	3.	Plan a unit of instruction.
X	X				X	4.	Write a lesson plan.
X				X	X	5.	Select an appropriate teaching method.
			X	X	X	6.	Select and obtain instructional materials.
			X	X	X	7.	Prepare instructional materials.
			X	X	X	8.	Develop course of study.
							Category C: Presentation of Instruction - principles and techniques for helping students master instructional objectives.
X	X				X	1.	Present a manipulative lesson.
X	X				X	2.	Present a related lesson.
X	X				X	3.	Employ oral questioning techniques.
X	X				X	4.	Present information with illustrated talk.
X	X				X	5.	Conduct group discussions.
X	X				X	6.	Present information with chalkboard.
X	X				X	7.	Present information with overhead projector.
X	X				X	8.	Present information using models/real objects.
			X	X	X	9.	Present information with films.
			X	X	X	10.	Present information with filmstrips/slides.
			X	X	X	11.	Illustrate with bulletin boards and exhibits.
			X	X	X	12.	Individualize instruction.
			X	X	X	13.	Conduct field trips.
			X	X	X	14.	Utilize resource person.
			X	X	X	15.	Employ brainstorming techniques.
			X	X	X	16.	Employ team teaching.
							Category D: Application of Learning - principles and techniques for helping students apply what they have learned.
X				X	X	1.	Direct problem solving activities.
			X	X	X	2.	Direct shop/laboratory experience.
			X	X	X	3.	Direct student study.
			X	X	X	4.	Direct students in instructing other students.
			X	X	X	5.	Employ technique of simulation.
			X	X	X	6.	Employ technique of role playing.

[a]This category taken to Awareness (A) level only. All other categories taken to Practive (P) and Real-school (R) levels.

Figure 4 (continued)

Preservice A	Preservice P	Preservice R	Inservice A	Inservice P	Inservice R		
						Category E:	Evaluation - principles and techniques for evaluating students' mastery of instructional objectives.
X	X				X	1.	Assess student skill in shop/laboratory.
X	X				X	2.	Assess student knowledge in classroom.
			X	X	X	3.	Assess important student attitudes.
X				X	X	4.	Determine student grades.
X				X	X	5.	Conduct follow-up study to evaluate program effectiveness.
			X	X	X	6.	Evaluate instructional effectiveness.
						Category F:	Classroom/Laboratory Management - principles and techniques of managing time, materials, equipment, supplies, etc. for safe and effective mastery of instructional objectives.
X	X				X	1.	Organize and maintain the vocational classroom.
X	X				X	2.	Organize and maintain the vocational laboratory.
X	X				X	3.	Establish and maintain a filing system.
X	X				X	4.	Establish and maintain a student progress record.
X	X				X	5.	Provide for the safety/first aid needs of vocational students.
X	X				X	6.	Manage equipment and supplies.
			X	X	X	7.	Project instructional resource needs.
			X	X	X	8.	Arrange for expanding facilities.
						Category G:	Human Relations - principles and techniques for effectively communicating with students, parents, colleagues, administration, community and others with whom the instructor must deal.
X				X	X	1.	Communicate with students, other teachers, administrators and laymen.
X				X	X	2.	Determine needs and interests of students.
X				X	X	3.	Relate to students to facilitate learning.
X				X	X	4.	Assist students in developing self-discipline.
X				X	X	5.	Employ reinforcement techniques in interpersonal relations.
X				X	X	6.	Demonstrate positive interpersonal relations within the school system.
			X	X	X	7.	Maintain occupational advisory committee.
			X	X	X	8.	Sponsor the student vocational organization.
			X	X	X	9.	Help students secure job or further education.
			X	X	X	10.	Utilize student personnel services or outside agencies to meet student needs.
						Cateogry H:	Professional Role - designed to help the teacher develop a professional philosophy and the skills needed to increase professional and occupational competencies.
			X	X	X	1.	Express and display a personal philosophy consistent with the principles of vocational education.
			X	X	X	2.	Utilize opportunities for professional growth, i.e., professional organizations, etc.
			X	X	X	3.	Develop a plan to keep up-to-date in the occupational specialty.

1. Method for assigning credit to competencies and competency categories based on average effort to master competencies.

2. Elimination of traditional internship (15 Q.H.) at end of degree program and incorporation of "mini-internship" at completion of each competency category to allow teacher trainee an opportunity to demonstrate competence before proceeding to next competency category.

3. Use of jury composed of experienced teacher, administrator and teacher educator to evaluate competence.

4. Development of a competency-based transcript listing competencies, date completed and signature of jury members.

5. Use of resource person to guide teacher trainee through program.

6. Use of self instructional, competency-based instructional materials.

PHASE III OBJECTIVES

Specific objectives of Phase III of the Competency-Based Industrial Teacher Education Project were as follows:

1. To develop and implement a pilot field-based, inservice staff development program leading to the Standard Rank III certificate (industrial) utilizing a competency-based approach.

2. To continue staff development activities for 17 new industrial education instructors begun in summer, 1976, in the form of a preservice CBITE workshop held in Orlando, July 26, 1976 through September 13, 1976.

3. To give teacher educators in industrial education programs in the state university system, practical, field-based experience in developing, implementing, operating and evaluating competency-based teacher education programs.

The primary goal of Phase III was to develop and field test a field based approach to competency-based industrial teacher education. Phase III was to build upon the outcomes of Phase I and II. Phase I laid the groundwork for CBITE in Florida and during Phase II a pilot preservice program was held for 17 newly employed industrial education instructors. Phase III was designed to pick up the staff development of these 17 instructors where the preservice workshop left off.

It was anticipated that Phase III would yield preliminary data concerning the feasibility of implementing competency based teacher education using a field-based approach. Among the questions for which tentative answers were sought were:

1. How can college credit be awarded for CBITE activities?

2. How can instruction in competencies best be delivered?

3. What materials are available to aid instructors in mastering competencies?

4. How can instructors' mastery of competencies be evaluated?

5. Were the preservice and inservice competencies identified during Phases I and II valid?

METHODOLOGY

This section of the report describes the activities undertaken during Phase III to meet the project objectives.

PARTICIPANTS

The participants involved in Phase III during 1976-77 consisted of the subgroups listed in Table 1.

TABLE 1

Phase III Participants

Subgroups	N
Industrial Education Instructors	17
Local Resource Persons	15
Industrial Teacher Educators	6

Instructors

The 17 instructors involved in Phase III were the same 17 instructors who participated in the preservice workshop during the summer of 1976. These instructors were employed in high schools, area vocational-technical centers and community colleges across the state of Florida. All were non-certified ITE instructors with little or no previous professional preparation. Specific responsibilities of the 17 instructors were:

1. Attend all scheduled meetings with resource person and teacher educator.
2. Read all instructional materials given by teacher educator.
3. Develop all lesson plans, tests, etc. assigned by teacher educator.
4. Incorporate competencies included in the program into your instruction in the classroom and lab.
5. Complete a course in Principles and Practices of Vocational Education and a course in Educational Psychology.
6. Participate in follow-up and evaluation activities at the end of the program.

Local Resource Persons

Local resource persons were utilized during Phase III to aid the instructor in making the transition from industry to education and to aid the teacher educator in delivering instruction in and evaluating mastery of competencies. Each instructor selected a local resource person to assist him throughout the 1976-77 school year. Resource persons were vocational education instructors (not necessarily in the same occupation) or a local administrator or supervisor in the instructor's school. Two of the 15 resource persons each served two instructors participating in the project. Specific responsibilities of local resource persons were:

1. Orient instructor to district and school organizational structure, policies, procedures, etc.

2. Assist instructor in the solution of problems arising from his normal duties as an instructor.

3. Assist instructor in mastering competencies by aiding instructor with modules and other instructional materials and by providing additional instruction in competencies as needed.

4. Provide feedback to instructor on his mastery of competencies by observing instruction, reviewing lesson plans, etc.

5. Provide feedback to project staff concerning the overall effectiveness of the inservice program.

6. Assist instructor to establish or maintain craft advisory committee.

Teacher Educators

Industrial teacher educators were selected to participate in the project based on their proximity to one or more of the 17 instructors. Six teacher educators representing five different state universities participated. Responsibilities of these teacher educators were:

1. Diagnose strengths and weakness of instructor and recommend areas in which instructor should concentrate his professional development efforts.

2. Provide instruction (modules, handouts, discussion, etc.) designed to help instructor master competencies.

3. Evaluate instructor's mastery of competencies.

FRAMEWORK FOR INSERVICE PHASE

Planning for Inservice Phase

The reader should recall that one of the objectives of Phase II (1975-76) was to plan an inservice phase to compliment the preservice workshop. This early planning involved identifying and validating inservice competencies needed by instructors during their first year of teaching, identifying tentative assessment criteria and exploring alternative approaches to implementing the inservice phase.

The original overall project schedule called for an early meeting of the CBITE advisory committee and project staff during August or September of 1976. The purpose of this meeting was to finalize plans for and begin actual implementation of the inservice phase during the early part of September. An early start on Phase III was desirable to effect a smooth transition from the preservice workshop to the inservice phase.

After the conclusion of a successful preservice workshop in August, 1977, several events occurred which delayed the early implementation of Phase III. The project director for Phases II and III left the state of Florida and funding for Phase III was delayed.

A planning meeting was held in Tallahassee during October to resolve the questions of funding, site of the project and what type of delivery system would be utilized during the inservice share.

In November, 1976, a grant was awarded to the University of South Florida to conduct Phase III and Dr. William Blank was to serve as project director.

Delivery System for Inservice Phase

A delivery system for the inservice phase was devised that would aid the 17 instructors in mastering the inservice competencies. The 17 instructors were served by six teacher educators from UWF, UNF, FTU, USF and FIU. Teacher educators made at least eight on site visits to each of the 17 instructors between November, 1976 and June, 1977. An initial visit was made by the teacher educator to review the inservice share with the instructor, aid him in selecting a local resource person and to determine the inservice competencies the instructor needed help in mastering first. This first visit was preceded by a letter from the project director fully explaining the details of the inservice phase (see Appendix A). Subsequent visits by the teacher educator were utilized to provide an opportunity for the instructor to demonstrate mastery of the preservice competencies covered in the preservice workshops. Instruction also was provided in the inservice competencies and instructors demonstrated mastery of these competencies during regular visits by the teacher educator. A record of in-school visits was developed for use by teacher educators to better manage time used for the on site visits (see Appendix B). A progress chart (Appendix C) was utilized to monitor the progress of each instructor toward mastering all competencies.

Instructional Materials

Instructional materials utilized during the inservice phase to aid instructors in mastering competencies consisted primarily of a series of professional vocational teacher education modules developed by the Center for Vocational Education at the Ohio State University. These modules closely matched the inservice competencies included in Phase III. Sufficient copies of the modules were purchased for the instructors, resource persons and the teacher educators.

Additional materials utilized included professional vocational teacher education modules developed by the Dade County Performance-Based Teacher Education Program and additional materials supplied by individual teacher educators.

EVALUATION OF PHASE III

In order to determine how effectively the objectives of Phase III had been met, the project included an evaluation component. Instruments and evaluation procedures were developed to answer the following questions:

1. How effective, in the eyes of their students, were the 17 instructors during the 1976-77 school year in performing the 57 preservice and inservice competencies?

2. How effective, in the eyes of resource persons, were the 17 instructors?

3. How effective, in the eyes of the teacher educators, were the 17 instructors?

4. Were there significant differences in the ratings of instructors among students, resource persons and teacher educators?

5. Were the original preservice competencies (Phase I) valid entry level professional skills needed by the beginning industrial education instructor?

6. Were the additional inservice competencies (Phase II) valid competencies needed by instructors during their first year of teaching?

7. Were there significant differences in the importance ratings of competencies among instructors, resource persons and teacher educators?

8. Was the delivery system utilized during Phase III effective in aiding instructors in mastering competencies?

Development of Evaluation Instruments

In order to answer these questions, the following instruments were developed:

Instructor Rating Form for Students

This instrument (see Appendix D) listed the preservice and inservice professional competencies included in the Phase II preservice workshop and the Phase III inservice program. Those competencies that students would have no way of observing (such as "establish an advisory committee") were not included on the rating form for students. Those competencies that could be observed by students throughout the year were included and were reworded to make them understandable by students. A total of 37 competency statements were included. A five point rating scale (5=excellent, 4=good, 3=fair, 2=poor, and 1=not at all) was included. Directions explained the use of the instrument and the rating scale to students.

Instructor Rating Form - Professional

This instrument (see Appendix E) listed all 57 preservice and inservice competencies and utilized the same five point rating scale. This instrument was designed to be completed by teacher educators and resource persons to secure data about the instructor's level of performance in each competency.

Competency Rating Form

A third instrument (see Appendix F) was developed to assess the validity of the competencies themselves to secure feedback on which competencies were needed immediately by the beginning teacher and to answer several questions about the effectiveness of the CBITE program. All 57 preservice and inservice competencies were listed along with a six point rating scale (1=not important to 6=very important). Beside each competency was a blank in which the respondent could place a check mark if he felt the particular competency was needed immediately by the beginning instructor and therefore should be included in future preservice programs. Additional items were included to evaluate the effectiveness of the resource person, the teacher educator, the instructional materials used and the project in general. These items were rated on a four point scale ranging from strongly agree (SA), agree (A), disagree (D) to strongly disagree (SD).

Collection and Analysis of Data

The Instructor Rating Form for students was distributed to each teacher educator in sufficient quantity for students enrolled in the instructors' program. A letter (see Appendix G) was enclosed explaining the use of the instrument to teacher educators. An appropriate number of instruction sheets (see Appendix H) for administering the instrument was enclosed.

The Competency Rating Form and Instructor Rating Form-Professional were also distributed to teacher educators. Teacher educators completed one copy of the Competency Rating Form and one copy of the Instructor Rating Form-Professional for each of the 17 instructors they were serving throughout the year. Copies of both instruments were also forwarded to each resource person to complete and a copy of the Competency Rating Form was forwarded to each of the 17 instructors.

Pre-addressed, stamped envelopes were provided to facilitate return of the instruments to the project director. Table 2 shows the number of instruments distributed to whom and the number and percentage of returns.

TABLE 2

Distribution and Return of Evaluation Instruments

Instrument	Distributed To	No. Distributed	No. Returned	%
Competency Rating Form	Instructors	17	12	71
	Resource Persons	15	12	80
	Teacher Educators	6	5	83
Instructor Rating Form for Students	Students	(50 for each Instructor)		
Instructor Rating Form-Professional	Resource Persons	17	14	82
	Teacher Educators	17	14	82

Responses from all returned instruments were transferred to magnetic tape and analyzed by computer. In order to get an indication of the effectiveness of the 17 instructors participating in the project, their mean level of performance for each competency as rated by students, resource persons and teacher educators was computed. Ratings of all 17 instructors were combined; at no time were individual instructor ratings analyzed. To detect significant differences in the mean instructor ratings for specific competencies between resource persons and teacher educators, a two-tailed t-test was utilized.

To assess the validity of the original preservice and inservice competencies, the mean importance ratings of each competency was computed as rated by the 17 instructors, the 15 resource persons and the 6 teacher educators. Again, a one-way analysis of variance was utilized to detect significantly different mean importance ratings for competencies among the three groups of participants.

FINDINGS AND DISCUSSION

RATING OF INSTRUCTORS BY STUDENTS

In order to determine how effective instructors were performing the preservice and inservice competencies (in the eyes of their students), An Instructor Rating Form for Students was developed. This rating form included 37 of the 57 competencies that students would be able to observe their instructors perform. Students rated the effectiveness of their instructors on a five point scale from 5=excellent to 2=poor and 1=not at all. Table 3 lists the 37 competencies included on the instrument and the mean instructor rating for all 17 instructors as rated by all 257 students. Also on Table 3 is the number and percentage of students who indicated that he or she was unable to determine if the instructor performed the competency at all ("not at all").

The competency for which instructors as a group were rated highest by students was "treats safety as important and shows how to safely use all tools and equipment" (mean= 4.54). Students rated instructors lowest in "brings people in from industry to talk to the class about the occupation" (mean= 3.69). Apparently, the 17 instructors who participated in the CBITE program placed a high level of importance on safety. It appears as if they spent considerable time in the class and lab stressing the importance of safety. This may have been due to the emphasis placed on safety during the preservice workshop and in the inservice phase, teacher liability cases publicized in the media, or other factors.

It appears as if the 17 instructors did not frequently utilize resource persons to aid students in meeting instructional objectives. Instructors may not have attached much importance to this competency or they may not have been adequately instructed in how to effectively utilize resource persons.

Three competencies, dealing with utilizing field trips, team teaching and the overhead projector, were rated "not at all" by at least 30% of the students. The 17 instructors, perhaps, found these competencies less important in their instructional programs.

It appears as if the 17 instructors generally adopted the majority of the CBITE competencies into their programs. Of the 37 competencies on the instrument, 27 were rated "not at all" by less than 5% of students and 19 of these were rated not at all by 2% or less.

Students generally rated the 17 instructors favorably as to their teaching effectiveness. All of the 37 competencies on the instrument completed by students received a mean rating of 3.50 (midpoint, excluding not at all rating) or higher.

Table 3

Student Ratings of Instructor

Effectiveness For Selected Competencies (N=257)

(2= Poor - 5= Excellent; 1= Not At All)

Competency Statement	Effectiveness Ratings		
	Mean (Rating 2-5)	"Not At All" N	"Not At All" %
1. Is teaching you the skills, information and attitudes needed on the job	4.38	2	1
2. Lets you know exactly what the objective of each lesson is (what you will be able to do or know and how well you must be able to perform)	4.21	4	2
3. Plans a whole unit so it all fits together and is easy to learn	4.13	2	1
4. Plans his instruction for each day so you can learn more easily	4.10	1	0
5. Uses the best teaching method for what is being taught	4.19	2	1
6. Selects textbooks, films and other materials that help you learn	3.93	16	6
7. Prepares handouts, transparencies and other materials that help you learn	4.03	17	7
8. Demonstrates how to perform a skill or use tools or equipment used on the job	4.49	1	0
9. Presents a lesson covering background information, theory, or facts needed on the job	4.07	6	2
10. Conducts good class discussion	4.19	5	2
11. Uses the chalkboard in an effective manner	4.19	11	4
12. Uses the overhead projector in an effective manner	3.75	82	32
13. Uses media such as films, filmstrips, slides, models, bulletin boards, exhibits in an effective manner	3.76	36	14
14. Provides instruction so faster students can go ahead of group and so slower students are helped along	4.23	9	4
15. Takes class on field trips that help you learn more about the occupation	3.86	125	49
16. Brings people in from industry to talk to the class about the occupation	3.69	61	24
17. Helps the class to figure out solutions to problems on their own	4.29	4	2
18. Has other teachers come in and teach in special areas	3.71	103	40
19. Give students plenty of chances to get "hands on" experience in practicing the skills or using the tools and equipment required on the job	4.49	1	0
20. Gives assignments that help you learn things that you need to know on the job	4.25	11	4
21. Uses the better students to help teach the slower students	4.19	22	9
22. Figures out ways to let students act out situations or pretend they are using equipment or tools found on the job but are not available to the school	3.85	55	21
23. Tests students ability to perform the skills and use the tools and equipment needed on the job	4.34	5	2

Table 3 (continued)

Competency Statement	Effectiveness Ratings		
	Mean (Rating 2-5)	"Not At All" N	"Not At All" %
24. Tests students knowledge of the facts, theories and principles needed on the job.	4.18	3	1
25. Determines if students have the necessary attitudes and feelings to be able to get and hold a job.	4.21	9	4
26. Give students grades in a fair manner.	4.47	5	2
27. Has the classroom organized and laid out in a way that is safe and that helps students learn better.	4.32	3	1
28. Has the shop or lab organized and laid out in a way that is safe and that helps students learn better.	4.35	5	2
29. Has all his materials and paperwork filed away so he can easily find things.	4.12	9	4
30. Has a chart posted in room showing all the skills or units each student has completed.	4.19	29	11
31. Treats safety as important and shows how to safely use all tools and equipment.	4.54	5	2
32. Materials, supplies, and tools are easy for students to get, and students never have to stop working because not enough tools and supplies are around.	4.09	9	4
33. Teacher communicates well with students and other teachers.	4.47	3	1
34. Students seem to respect the teacher and he relates to them so they want to learn.	4.40	5	2
35. Good discipline is maintained so students' learning is not interrupted by other students misbehaving or clowning around.	4.12	6	2
36. Gives students a chance to join the VICA club.	4.44	43	17
37. Helps students who are leaving school to get a job or go on to further schooling.	4.06	26	10

COMPARISON OF INSTRUCTOR RATINGS BY TEACHER EDUCATORS AND RESOURCE PERSONS

All 57 preservice and inservice competencies were included on an Instructor Rating Form - Professional which was completed by the instructors' local resource person and by the six teacher educators. This data was collected to give some indication of how well (in the eyes of resource persons and teacher educators) the 17 instructors were performing each competency. This instrument was completed by a local resource person and by a teacher educator for each of the 17 instructors.

Table 4 lists the 57 competency statements, the mean effectiveness rating by teacher educators and resource persons and the number and percentage of each subgroup who rated each competency "not at all".

The highest mean instructor effectiveness rating given by all teacher educators combined was 4.00 and was given to 13 of the 57 competencies. Four of these 13 were in planning instruction, five in presenting instruction, one in applying instruction, and three in student evaluation. The lowest mean rating given by the six teacher educators was 3.25 for "employ brainstorming techniques".

A considerable number of instructors received a "not at all" rating by teacher educators on several competencies. At least 30% of the instructors were rated "not at all" on 37 of 57 competencies. This relatively high number might be a result of the short time spent by teacher educators actually observing the instructors perform competencies.

It appears as if teacher educators were slightly more critical of instructors than were students. Four of the 57 competencies had mean effectiveness ratings below the midpoint (3.50) on the rating scale. A further indication of this trend is the highest mean rating (4.00) given by teacher educators compared to the highest mean rating (4.54) given by students as well as the lowest (3.25) by teacher educators compared to the lowest (3.69) by students.

Mean instructor effectiveness ratings by resource persons were similar to those of teacher educators. A two-tailed t-test revealed that there were no significant differences (at the .05 level) in the mean effectiveness ratings of each competency between teacher educators and resource persons. The highest mean effectiveness rating given by resource persons was 4.00 - identical to the highest mean rating given by the teacher educators. However, this mean rating was given to only eight competencies by resource persons and to 13 competencies by teacher educators. Five competencies received a mean rating of 4.00 by both subgroups.

The lowest mean effectiveness rating given by resource persons (3.33) was for sponsoring the student vocational organization.

Table 4

Comparison of Instructor Effectiveness Ratings Between

Local Resource Persons (N=13) and Teacher Educators (N=13)

(2= Poor - 5= Excellent; 1= Not At All)

Competency Statement	Effectiveness Ratings						
	Teacher Educators				Resource Persons		
	Mean (2-5)	"Not At All" N	"Not At All" %	t-Value	Mean (2-5)	"Not At All" N	"Not At All" %
1. Analyzing the occupation to determine what to teach	3.89	4	31	(.35)	4.00	5	38
2. Identifying and writing instructional objectives	4.00	4	31	(.34)	3.91	2	15
3. Planning a unit of instruction	4.00	5	38	(.36)	3.86	6	46
4. Writing a lesson plan	4.00	6	46	(.17)	3.78	4	31
5. Selecting an appropriate teaching method	4.00	4	31	(1.0)	4.00	2	15
6. Selecting and obtaining instructional materials	3.80	3	23	(1.0)	3.80	3	23
7. Preparing instructional materials	3.90	3	23	(1.0)	3.90	3	23
8. Developing a complete course of study	3.55	2	15	(.23)	3.80	3	23
9. Demonstrating a skill	4.00	9	69	(1.0)	4.00	8	62
10. Presenting a related lesson	4.00	6	46	(.34)	3.90	3	23
11. Employing oral questioning techniques	3.78	4	31	(1.0)	3.78	4	31
12. Presenting information with an illustrated talk	4.00	4	31	(.35)	3.89	4	31
13. Conducting a group discussion	3.80	3	23	(.63)	3.70	3	23
14. Presenting information with the chalkboard	3.86	6	46	(.93)	3.88	5	38
15. Presenting information with the overhead projector	3.86	6	46	(.40)	3.67	4	31
16. Presenting information using models/real objects	4.00	5	38	(.17)	3.71	6	46
17. Presenting information with films	3.86	6	46	(.86)	3.89	4	31
18. Presenting information with filmstrips/slides	4.00	7	54	(.18)	3.67	7	54
19. Illustrating with bulletin boards and exhibits	3.67	1	8	(.69)	3.58	1	8
20. Individualizing instruction	3.75	5	38	(.50)	3.89	4	31
21. Conducting field trips	3.57	6	46	(.44)	3.80	8	62
22. Utilizing resource persons	3.63	5	38	(.64)	3.50	5	38
23. Employing brainstroming techniques	3.25	1	8	(.11)	3.67	4	31
24. Employing team teaching techniques	3.43	6	46	(1.0)	3.43	6	46
25. Directing problem solving activities	3.67	4	31	(.25)	3.90	3	23
26. Directing shop/lab experiences	4.00	8	62	(1.0)	4.00	8	62
27. Directing student study	3.80	3	23	(.56)	3.90	3	23
28. Directing students in instructing other students	3.75	5	38	(.21)	3.73	2	15
29. Employing technique of stimulation	3.71	6	46	(.65)	3.82	2	15
30. Employing technique of role playing	3.38	5	38	(.37)	3.67	4	31
31. Assessing student skill in shop/lab	4.00	9	69	(1.0)	4.00	4	31
32. Assessing student knowledge in classroom	4.00	7	54	(1.0)	4.00	6	46
33. Assessing important student attitudes	3.90	3	23	(.45)	3.75	5	38
34. Determining student grades	4.00	7	54	(.37)	3.80	8	62
35. Conducting followup study to evaluate program effectiveness.	3.63	5	38	(.74)	3.71	6	46

Table 4 (continued)

Competency Statement	Effectiveness Ratings						
	Teacher Educators				Resource Persons		
	Mean (2-5)	"Not At All" N	"Not At All" %	t-Value	Mean (2-5)	"Not At All" N	"Not At All" %
36. Evaluating instructional effectiveness	3.82	2	15	(.84)	3.78	4	31
37. Organizing and maintaining the vocational classroom	3.71	6	46	(.92)	3.75	5	38
38. Organizing and maintaining the vocational laboratory	3.71	6	46	(.73)	3.83	7	54
39. Establishing and maintaining a filing system	3.70	3	23	(.75)	3.62	0	0
40. Establishing and maintaining a student progress record	3.50	7	54	(.53)	3.75	5	38
41. Providing for the safety/first aid needs of the students	3.80	8	62	(.90)	3.83	7	54
42. Managing equipment and supplies	3.67	4	31	(.91)	3.63	5	38
43. Projecting instructional resource needs	3.60	3	23	(.66)	3.75	5	38
44. Arranging for expanding facilities	3.43	6	46	(.90)	3.50	9	69
45. Communicating with students, teachers, administrators, laymen	3.75	1	8	(.89)	3.78	4	31
46. Determining needs and interests of students	3.83	1	8	(.17)	4.00	4	31
47. Relating to students to facilitate learning	3.82	2	15	(.17)	4.00	6	46
48. Assisting students in developing self discipline	3.82	2	15	(.88)	3.78	4	31
49. Employing reinforcement techniques in interpersonal relationships	3.77	0	0	(.42)	3.90	3	23
50. Demonstrating positive interpersonal relations within the school system	3.82	2	15	(.92)	3.80	3	23
51. Maintaining an occupational advisory committee	3.57	6	46	(.96)	3.56	4	31
52. Sponsoring the student vocational organization	3.50	5	38	(.68)	3.33	7	54
53. Helping students secure jobs or further education	3.78	4	31	(.38)	3.50	5	38
54. Utilizing student personnel services or outside agencies to meet student needs	3.75	5	38	(.83)	3.70	3	23
55. Expressing and displaying a personal philosophy consistent with the principles of vocational education	3.80	3	23	(.76)	3.71	6	46
56. Utilizing opportunities for professional growth, (professional organizations, etc.)	3.80	3	23	(1.0)	3.80	8	62
57. Developing a plan to keep up-to-date in the occupational specialty	3.58	1	8	(.20)	3.86	6	46

Apparently, resource persons also spent little time actually observing instructors demonstrate the 57 competencies. At least 30% of the instructors received a "not at all" rating by resource persons on 41 of the competencies, slightly more than by teacher educators (37).

Two of the 57 competencies received a mean effectiveness rating from resource persons less than the midpoint (3.50) on the rating scale. These same competencies, "employ team teaching" and "sponsor the student vocational organization" were rated 3.50 or less by teacher educators also. Further illustrating the similarity of ratings given by teacher educators and by resources is the lowest mean rating given by each group, 3.25 and 3.33 respectively.

COMPETENCY IMPORTANCE RATINGS

In order to determine the validity of the preservice competencies identified during Phase I and the inservice competencies identified during Phase II, these individuals actually involved in delivering, mastering and evaluating these competencies were asked to rate the relative importance of each competency. The 17 instructors, the 15 resource persons and the six teacher educators were asked to rate the importance of each of the 57 competencies on a six point rating scale ranging from 6=very important to 1=not important. Also, they were asked to identify with a check mark those competencies that were needed immediately by the beginning instructor and should, therefore, be included in future preservice programs.

Table 5 lists each of the 57 competencies, the mean importance rating by resource persons, teacher educators, and instructors as well as the percentage of all three subgroups combined who checked each item as preservice. A one-way analysis of variance and the Newman-Keuls test were utilized to detect and identify any significant differences in the mean importance ratings of competencies among the three subgroups. Only two of the 57 competencies received significantly different mean importance ratings (.05) among the three groups. This indicates that there was general agreement among the resource persons, teacher educators and instructors as to the relative importance of the 57 competencies. For this reason, the combined mean importance rating for all participants will be used as the basis for the remainder of the discussion concerning competency importance ratings.

Table 6 lists the 10 most important and 10 least important competencies as rated by the three groups combined. All 10 competencies in the "most important" category were also rated as "preservice" by at least 50% of those responding. Six of these 10 were rated as preservice by 70% or more respondents. Conversely, only one of the 10 "least important" competencies was rated as "preservice" by at least 50% of respondents and this competency had the highest mean importance rating in the "least important" category.

Table 5

Comparison of Competency Importance Ratings Among

Teacher Educators, Local Resource Persons and Instructors

(1= Not Important - 6= Very Important

Competency Statement	Mean Importance Rating					% Checking Item As Pre-service N= 28
	Res. Per. N= 12	Teach. Ed. N= 4	Instr. N= 12	Mean-All Groups	F-Ratio	
Preparation for Instruction						
1. Analyze an occupation to determine what should be taught.	5.91	5.33	5.55	5.70	.60	64
2. Identify and write instructional objectives	5.55	6.00	5.58	5.62	.57	75
3. Plan a unit of instruction.	5.67	6.00	5.92	5.81	1.64	86
4. Write a lesson plan	5.67	6.00	5.82	5.77	.35	89
5. Select an appropriate teaching method	5.18	5.67	5.09	5.20	.45	64
6. Select and obtain instructional materials (texts, media, etc.).	4.80	5.67	5.11	5.05	.49	43
7. Prepare instructional materials (handouts, transparencies, etc.).	4.92	4.33	5.55	5.12	2.24	64
8. Develop a complete course of study.	4.86	4.00	5.29	4.88	1.09	25
Presentation of Instruction						
9. Demonstrate a skill	5.64	6.00	5.33	5.56	.60	75
10. Present a related lesson (theory, information, etc.).	5.75	5.75	5.45	5.63	.43	79
11. Employ oral questioning techniques.	4.91	5.33	5.25	5.09	.41	46
12. Present information with illustrated talk	5.20	4.67	4.86	5.00	.30	32
13. Conduct group discussions	5.09	4.25	4.78	4.83	.63	32
14. Present information with chalkboard	5.40	5.67	5.63	5.52	.24	57
15. Present information with overhead projector	5.27	5.33	5.00	5.17	.24	71
16. Present information using models/real objects	5.45	5.67	5.78	5.61	.59	61
17. Present information with films.	5.00	3.50	4.38	4.52	1.70	46
18. Present information with filmstrips/slides.	5.18	4.00	4.50	4.74	1.52	50
19. Illustrate with bulletin boards and exhibits.	4.50	4.00	3.83	4.23	.81	25
20. Individualize instruction.	5.75	5.50	5.67	5.67	.16	57
21. Conduct field trips	4.30	3.75	4.00	4.10	.41	11
22. Utilize resource person	5.27	4.33	5.11	5.09	.88	39
23. Employ brainstorming techniques	4.40	2.67	3.44	3.77	2.07	11
24. Employ team teaching.	4.18	3.00	3.91	3.92	.75	14
Application of Learning						
25. Direct problem solving activities	5.40	4.75	5.43	5.29	.99	43
26. Direct shop/laboratory experiences	5.91	6.00	6.00	5.96	.62	46
27. Direct student study	5.44	4.33	5.00	5.11	1.11	32
28. Direct students in instructing other students.	4.36	3.50	4.57	4.35	.47	11
29. Employ techniques of simulation.	5.00	4.50	4.63	4.80	.31	25
30. Employ technique of role playing	4.56	4.00	4.00	4.29	.45	14
Evaluation of Learning						
31. Assess student skill in shop/laboratory.	5.91	6.00	5.90	5.92	.19	71
32. Assess student knowledge in classroom.	5.92	6.00	6.00	5.96	.61	71
33. Assess important student attitudes	5.44	5.25	6.00	5.60	1.73	29

Table 5 (continued)

Competency Statement	Mean Importance Rating					% Checking Item As Pre-service N= 28
	Res. Per. N= 12	Teach. Ed. N= 4	Instr. N= 12	Mean-All Groups	F-Ratio	
34. Determine student grades	5.55	6.00	5.56	5.61	.28	64
35. Conduct follow-up study to evaluate program effectiveness.	5.14	6.00	4.50	4.88	1.00	18
36. Evaluate your instructional effectiveness.	5.55	5.50	5.78	5.64	.16	39
Class/Lab Management						
37. Organize and maintain the vocational classroom	5.82	6.00	5.80	5.83	.31	71
38. Organize and maintain the vocational laboratory.	5.91	6.00	5.91	5.92	.18	79
39. Establish and maintain a filing system	5.00	5.00	5.25	5.10	.17	36
40. Establish and maintain a student progress record	5.83	6.00	5.50	5.75	1.54	64
41. Provide for the safety/first-aid needs of vocational students.	5.91	5.75	6.00	5.92	1.20	57
42. Manage equipment and supplies.	5.78	5.75	5.71	5.75	.02	43
43. Project instructional resource needs	5.13	3.50	5.30	5.05	3.45*	36
44. Arrange for expanding facilities	4.11	3.00	3.00	3.48	2.50	7
Human Relations						
45. Communicate with students, other teachers, administrators, laymen.	5.78	5.67	5.56	5.67	.31	50
46. Determine needs and interests of students.	5.90	5.00	5.50	5.63	2.53	32
47. Relate to students to facilitate learning.	5.90	5.75	5.75	5.83	.31	36
48. Assist students in developing self-discipline.	5.70	4.75	5.89	5.61	4.83**	39
49. Employ reinforcement techniques in interpersonal relations	5.43	4.67	5.80	5.40	2.02	21
50. Demonstrate positive interpersonal relations within the school system	5.89	5.00	4.88	5.35	1.87	18
51. Maintain occupational advisory committee	5.30	5.50	5.75	5.50	.38	43
52. Sponsor the student vocational program.	5.25	5.33	4.75	5.05	.40	32
53. Help students secure job or further education	5.40	5.00	5.17	5.28	.15	21
54. Utilize student personnel services or outside agencies to meet student needs	5.00	3.67	4.70	4.72	1.44	18
Professional Role						
55. Express and display a personal philosophy consistent with the principles of vocational education.	6.00	6.00	5.90	5.96	.63	54
56. Utilize opportunities for professional growth, i.e., professional organizations, etc.	5.70	4.75	5.57	5.48	1.65	25
57. Develop a plan to keep up-to-date in the occupational specialty	5.73	4.50	6.00	5.73	4.03*	36

* Significantly different at .05 level
** Significantly different at .01 level

Table 6

Ten Most and Least Important Competencies as

Rated by All Respondents (N=28)

(1= Not Important - 6= Very Important)

Rank (1-57)	Competency Statement	Mean	% Checking Item as Preservice
	10 Most Important Competencies		
2.0	Express and display a personal philosophy consistent with the principles of vocational education.	5.96	54%
2.0	Direct shop/ laboratory experience	5.96	62%
2.0	Assess student knowledge in the classroom.	5.96	71%
5.0	Assess student skill in the shop/laboratory.	5.92	71%
5.0	Organize and maintain the vocational laboratory. . . .	5.92	79%
5.0	Provide for the safety/first aid needs of vocational students	5.92	57%
7.5	Organize and maintain the vocational classroom	5.83	71%
7.5	Relate to students to facilitate learning.	5.83	36%
9	Plan a unit of instruction	5.81	86%
10	Write a lesson plan.	5.77	89%
	10 Least Important Competencies		
57	Arrange for expanding facilities	3.48	7%
56	Employ brainstorming techniques.	3.77	11%
55	Employ team teaching	3.92	14%
54	Conduct field trips	4.10	11%
53	Illustrate with bulletin boards & exhibits	4.23	25%
52	Employ technique of role playing	4.29	14%
51	Direct students in instructing other students.	4.35	11%
50	Present information with films	4.52	46%
49	Utilize student personnel services or outside agencies to meet student needs	4.72	18%
48	Present information with filmstrips and slides	4.74	50%

Utilizing an arbitrary 5.00 minimum cutoff to identify those competencies considered to be most important by those participating in Phase III, 14 of the 57 original competencies would be eliminated. These competencies involve developing a complete course of study, using a group discussion, films, filmstrips/slides, bulletin boards and exhibits, field trips, brainstorming techniques, team teaching, peer teaching, simulation role playing, follow-up study, arranging for expanding facilities and utilizing personnel and other services to meet student needs.

Of these 14 competencies that would be eliminated at a 5.00 cutoff level, 8 were included on the instrument students used to evaluate the effectiveness of the instructors. Of these eight, four were rated "not at all" by 20% or more of the students. Of these same 14 mentioned above, all were included on the Instructor Rating Form-Professional completed by resource persons and teacher educators. Eleven of these 14 competencies that would be eliminated using a 5.00 cutoff level were rated "not at all" by teacher educators and resource persons for at least 20% of instructors.

It appears as if the 14 competencies that would be eliminated at a 5.00 cutoff level were not only rated as relatively less important by instructors,teacher educators and instructors but were apparently not utilized frequently by the instructors during the 1976-77 year.

Table 7 lists the 22 competencies from the original list of 57 preservice and inservice competencies that were identified as preservice by at least 50% of teacher educators, resource persons and instructors combined. Sixteen of these 22 competencies identified as preservice by Phase III participants were originally identified as preservice and were included in the pilot preservice workshops held in the summer of 1976. Twelve preservice competencies included in the preservice workshop, however, were rated as preservice by less than 50% of Phase III participants.

There was generally good agreement between Phase III participants and the outcomes of Phases I and II concerning preservice competencies needed immediately by the beginning industrial education instructor. It appears as if those involved in Phases I and II, however, overestimated the number of preservice competencies needed.

Table 7

Competencies Rated by at Least 50% of All Respondents as Being Preservice Competencies

Percent	Competency Statement	Mean Importance Rating
89	Write a lesson plan	5.77
86	Plan a unit of instruction.	5.81
79	Present a related lesson.	5.63
79	Organize and maintain the vocational laboratory	5.92
75	Identify and write instructional objectives	5.62
75	Demonstrate a skill	5.56
71	Present information with the overhead projector	5.17
71	Assess student skill in the shop/laboratory	5.92
71	Assess student knowledge in the classroom	5.96
71	Organize and maintain the vocational classroom.	5.83
64	Analyze an occupation to determine what should be taught.	5.70
64	Select an appropriate teaching method	5.20
64	Prepare instructional materials	5.12
64	Determine student grades.	5.61
64	Establish and maintain a student progress record.	5.75
61	Present information with models/real objects.	5.61
57	Present information with the chalkboard	5.52
57	Individualize instruction	5.67
57	Provide for safety/first aid needs of students.	5.92
54	Express and display a personal philosophy consistent with the principles of vocational education	5.96
50	Present information with filmstrips/slides.	4.74
50	Communicate with students, other teachers, administrators, laymen.	5.67

CONCLUDING STATEMENTS

It may be inappropriate to draw definite conclusions and make firm recommendations from a project involving such a limited number of subjects. Several observations, however, may be made as a result of the activities and outcomes of Phase III of the CBITE project:

1. It appears as if a field-based, competency-based approach is a viable alternative to the traditional, university classroom based approach to industrial teacher education. Students, resource persons and teacher educators generally rated the 17 instructors in the CBITE project as effective. Feedback from their principals, directors and deans relayed to the project director during regular monthly meetings of the advisory committee was favorable.

2. Future CBITE efforts might be more successful if inservice instructors were grouped or clustered and served by teacher educators nearby. Several of the teacher educators involved in Phase III expressed frustration over the long travel distances involved in making regular in-school visits.

3. A more effective system of evaluating instructors' mastery of competencies is needed. A large number of both teacher educators and resource persons reported not being able to observe many of the instructors perform many of the competencies while students generally were able to observe most competencies.

4. Although most of the original 57 competencies were found to be important competencies for Rank III ITE instructors, several were less important and were used infrequently by the instructors.

5. The list of competencies in Table 7 identified as preservice by at least 50% of Phase III participants might be utilized as the basis for future preservice programs.

6. Phase III as well as the earlier two phases of the CBITE project did not fully address the issue of competency-based vocational education - now one of the foremost thrusts in vocational education in the state. It has not been determined which of the preservice and inservice competencies might contribute to the implementation of competency-based instruction. Additional research is needed in this area.

APPENDIX A

LETTER TO PHASE III CBITE PARTICIPANTS

UNIVERSITY OF SOUTH FLORIDA
TAMPA • ST. PETERSBURG • FORT MYERS • SARASOTA

COLLEGE OF EDUCATION
TAMPA, FLORIDA 33620
813: 974-2100

November 17, 1976

TO: Participants of Pilot CBITE Program

FROM: Bill Blank BB

RE: Inservice Phase of Program

I hope things are going well for you in your school! Our apologies for the delay in getting the inservice portion of the program going. I am pleased to report that the inservice phase has been finalized.

The major elements of the inservice portion are listed below:

1. Identification by you of a local resource person in your school to assist you through the program (an experienced vocational teacher in your occupational area, a vocational teacher in some other area, or perhaps an administrator or supervisor in vocational education).

2. Approximately one visit per month by a teacher educator from your university who will provide instruction and materials to help you master competencies and who will assess your mastery of competencies by observing your teaching.

3. Completion of one course in Principles and Practices of Vocational Education at the university and one course in Psychological or Sociological Foundations of Education at the university or at the community college.

You will have successfully completed the program when you have demonstrated your mastery of all the competencies and have completed the two courses listed above. Your teacher educator will be calling you very soon about visiting with you and your school administrator to assist in selecting your resource person (see responsibilities of resource person attached). He will also discuss college credit and certification with you in more detail.

Good luck during the inservice phase!

/br

Enclosure

THE UNIVERSITY IS AN AFFIRMATIVE ACTION EQUAL OPPORTUNITY INSTITUTION.

APPENDIX B

RECORD OF IN-SCHOOL VISITS

PILOT CBITE PROJECT

RECORD OF IN-SCHOOL VISITS

Instructor_____ School_____ County_____

Visit #	Date	Time - Tr. & Instr.	COMPETENCIES INSTRUCTION PROVIDED IN	COMPETENCIES EVALUATED-IN-SCHOOL SITUATION	COMMENTS
0	10-15	5 hrs.	Lesson plan, objectives ill. talk. discipline	Demonstration, films, overhead	Weak on demonstration-re-evaluate next visit
1					
2					
3					
4					

NOTE: transfer satisfactory evaluations to record sheet after each visit

(Over)

Visits	Date	Time - Tr. & Instr.	COMPETENCIES INSTRUCTION PROVIDED IN	COMPETENCIES EVALUATED-IN-SCHOOL SITUATION	COMMENTS
5					
6					
7					
8					
9					

Signed_____

Signed_____

APPENDIX C

INSTRUCTOR'S COMPETENCY PROGRESS CHART

APPENDIX A

PILOT COMPETENCY-BASED INDUSTRIAL TEACHER EDUCATION PROGRAM

PROGRESS CHART

Name_____ School_____ County_____

	Competency	AWARENESS Res. Person	AWARENESS Date	SIMULATION Res. Person	SIMULATION Date	IN-SCHOOL Res. Person	IN-SCHOOL Date
	B. PREPARATION FOR INSTRUCTION						
*	1. Analyze an occupation						
*	2. Identify & write instruct. objectives						
*	3. Plan a unit of instruction						
*	4. Write a lesson plan						
(*)	5. Select an appropriate teaching method						
*	6. Select and obtain instructional mats.						
*	7. Prepare instructional materials						
*	8. Develop course of study						
	C. PRESENTATION OF INSTRUCTION						
*	1. Present a minipulative lesson						
(*)	2. Present a related lesson						
*	3. Employ oral questioning techniques						
*	4. Present info. w/illustrated talk						
*	5. Conduct a group discussion						
*	6. Present info. w/chalkboard						
*	7. Present info. w/overhead projector						
*	8. Present info. using models &/or real obj.						
*	9. Present info. w/films						
*	10. Present info. w/filmstrips/slides						

* 11. Illustrate with bulletin boards/eshibits.
* 12. Individualize instruction.
\+ 13. Conduct field trips.
* 14. Utilize Resource Person
\+ 15. Employ brainstorming.
\+ 16. Employ team teaching.

	Competency	AWARENESS Res. Person	AWARENESS Date	SIMULATION Res. Person	SIMULATION Date	IN-SCHOOL Res. Person	IN-SCHOOL Date
	D. APPLICATION OF LEARNING						
*	1. Direct problem solving activities						
*	2. Direct shop/lab. experience						
*	3. Direct student study						
+	4. Direct stud. in instruct. of other stud.						
*	5. Employ technique of simulation						
(*)	6. Employ technique of role playing						

	Competency	AWARENESS Res. Person	AWARENESS Date	SIMULATION Res. Person	SIMULATION Date	IN-SCHOOL Res. Person	IN-SCHOOL Date
E.	EVALUATION						
1.	Assess student skill in shop/lab.						
2.	Assess student knowledge in classrm.						
3.	Assess important student attitudes						
4.	Determine student grades						
5.	Conduct follow-up study to evaluate program effectiveness						
6.	Evaluate instructional effectiveness						
F.	CLASSROOM/LABORATORY MANAGEMENT						
1.	Organize/maintain the voc. classrm.						
2.	Organize/maintain the voc. lab						
3.	Establish/maintain a filing system						
4.	Establish/maintain student progress rep						
5.	Provide safety/first-aid needs of voc. students						
6.	Manage equipment and supplies						
7.	Project instructional resource needs						
8.	Arrange for expanding facilities						
G.	HUMAN RELATIONS						
1.	Communicate w/students, teachers, administrators, laymen						
2.	Determining needs & insterest of stu.						
3.	Relate to stud. to facilitate learning						
4.	Assist stud. in developing self-discipline						
5.	Employ reinforcement techniques in interpersonal relation						
6.	Demonstrate positive interpersonal relations within school system						
7.	Maintain occup. advisory committee						
8.	Sponsor student voc. organization						
9.	Help students secure job or further edu						
10.	Utilize stud. personnel services or outside agencies to mmet student needs						
H.	PROFESSIONAL ROLE						
1.	Express & display a personal phil. consistent w/princ. of voc. ed.						
2.	Utilize opportunities for prof. growth						
3.	Develop a plan to keep up-to-date in occupational specialty						

* Sufficient quantities of these modules available.

(*) Included in one of available modules.

\+ Modules developed by center for these competencies.

\- Instructional materials need to be developed for these competencies.

APPENDIX D

INSTRUCTOR RATING FORM FOR STUDENTS

INSTRUCTOR RATING FORM FOR STUDENTS

Your instructor needs your help in becoming a better teacher! Listed below are teaching skills that your teacher uses throughout the year. You can help your instructor by telling him how well he is performing in each skill. Read each teaching skill listed below and rate your instructor on each skill by circling the number to the right that best macches your opinion of how well he is performing. The ratings are as follows:

5 EXCELLANT: Performing skill in very effective manner
4 GOOD: Performing skill in satisfactory manner
3 FAIR: Performing OK but needs some improvement
2 POOR: Performs skill but needs a great deal of improvement
1 NOT AT ALL: You can't tell if the instructor uses this skill

NOTE: DO NOT PUT YOUR NAME ON THIS FORM. THE RESULTS OF THIS EVALUATION WILL BE USED ONLY TO AID YOUR INSTRUCTOR IN IMPROVING HIS INSTRUCTION.

	EXCELLANT	GOOD	FAIR	POOR	NOT AT ALL
EXAMPLE: 0. uses good speech so all students can hear.	5	(4)	3	2	1
Rate your instructor on these teaching skills:					
1. Is teaching you the skills, information and attitudes needed on the job.	5	4	3	2	1
2. Lets you know exactly what the objective of each lesson is (what you will be able to do or know and how well you must be able to perform).	5	4	3	2	1
3. Plans a whole unit so it all fits together and is easy to learn.	5	4	3	2	1
4. Plans his instruction for each day so you can learn more easily.	5	4	3	2	1
5. Uses the best teaching method for what is being taught.	5	4	3	2	1
6. Selects textbooks, films and other materials that help you learn.	5	4	3	2	1
7. Prepares handouts, transparencies and other materials that help you learn.	5	4	3	2	1
8. Demonstrates how to perform a skill or use tools or equipment used on the job. . . .	5	4	3	2	1
9. Presents a lesson covering background information, theory or facts needed on the job	5	4	3	2	1
10. Conducts good class discussion.	5	4	3	2	1
11. Uses the chalkboard in an effective manner.	5	4	3	2	1
12. Uses the overhead projector in an effective manner.	5	4	3	2	1
13. Uses media such as films, filmstrips, slides, models, bulletin boards, exhibits in an effective manner.	5	4	3	2	1
14. Provides instruction so faster students can go ahead of group and so slower students are helped along.	5	4	3	2	1
15. Takes class on field trips that help you learn more about the occupation	5	4	3	2	1
16. Brings people in from industry to talk to the class about the occupation	5	4	3	2	1
17. Helps the class to figure out solutions to problems on their own.	5	4	3	2	1
18. Has other teachers come in and teach in special areas.	5	4	3	2	1
19. Give students plenty of chances to get "hands on" experience in practicing the skills or using the tools and equipment required on the job.	5	4	3	2	1
20. Gives assignments that help you learn things that you need to know on the job. . .	5	4	3	2	1
21. Uses the better students to help teach the slower students.	5	4	3	2	1
22. Figures out ways to let students act out situations or pretend they are using equipment or tools found on the job but are not available in school.	5	4	3	2	1
23. Tests students ability to perform the skills and use the tools and equipment needed on the job.	5	4	3	2	1
24. Tests students knowledge of the facts, theories and principles needed on the job . .	5	4	3	2	1
25. Determines if students have the necessary attitudes and feelings to be able to get and hold a job.	5	4	3	2	1

26. Give students grades in a fair manner. 5 4 3 2 1

27. Has the classroom organized and laid out in a way that is safe and that helps students learn better 5 4 3 2 1

28. Has the shop or lab organized and laid out in a way that is safe and that helps students learn better 5 4 3 2 1

29. Has all his materials and paperwork filed away so he can easily find things . . . 5 4 3 2 1

30. Has a chart posted in room showing all the skills or units each student has completed. 5 4 3 2 1

31. Treats safety as important and shows how to safely use all tools and equipment. . . 5 4 3 2 1

32. Materials, supplies, and tools are easy for students to get, and students never have to stop working because not enough tools and supplies are around. 5 4 3 2 1

33. Teacher communicates well with students and other teachers. 5 4 3 2 1

34. Students seem to respect the teacher and he relates to them so they want to learn . .5 4 3 2 1

35. Good discipline is maintained so students' learning is not interrupted by other students misbehaving or clowning around. 5 4 3 2 1

36. Gives students a chance to join the VICA club 5 4 3 2 1

37. Helps students who are leaving school to get a job or go on to further schooling . .5 4 3 2 1

38. You have been in the instructors' class how long (check one):
___ a year or more; ___ about half a year; ___ about six weeks
___ just a few weeks or shorter

39. What grade are you in school:
___ 9th; ___10th; ___11th; ___12th; ___ Post-High School

40. Write the name of the course or program you are taking under this instructor:

_____

APPENDIX E

INSTRUCTOR RATING FORM-PROFESSIONAL

INSTR. # T-3

INSTRUCTOR RATING FORM - PROFESSIONAL

Listed below are the teaching and related skills included in the pilot CBIFF project. Read each item carefully and rate the instructor's level of performance for each skill. Base your ratings on actual observations, review of materials, interviews or other objective means. Circle the appropriate response to the right of each item. Ratings are as follows:

(5) EXCELLANT - Performs in a very effective manner
(4) GOOD - Performs in a satisfactory manner
(3) FAIR - Performs marginally, needs some improvement
(2) POOR - Performs the skill but needs a great deal of improvement
(1) NOT AT ALL - No evidence that teacher performs this skill

How well does the instructor perform these skills:	EXCELLANT	GOOD	FAIR	POOR	NOT AT ALL
1. Analyzing the occupation to determine what to teach.	5	4	3	2	1
2. Identifying and writing instructional objectives.	5	4	3	2	1
3. Planning a unit of instruction.	5	4	3	2	1
4. Writing a lesson plan.	5	4	3	2	1
5. Selecting an appropriate teaching method	5	4	3	2	1
6. Selecting and obtaining instructional materials	5	4	3	2	1
7. Preparing instructional materials.	5	4	3	2	1
8. Developing a complete course of study	5	4	3	2	1
9. Demonstrating a skill.	5	4	3	2	1
10. Presenting a related lesson.	5	4	3	2	1
11. Employing oral questioning techniques	5	4	3	2	1
12. Presenting information with an illustrated talk	5	4	3	2	1
13. Conducting a group discussion	5	4	3	2	1
14. Presenting information with the chalkboard.	5	4	3	2	1
15. Presenting information with the overhead projector	5	4	3	2	1
16. Presenting information using models/real objects.	5	4	3	2	1
17. Presenting information with films.	5	4	3	2	1
18. Presenting information with filmstrips/slides.	5	4	3	2	1
19. Illustrating with bulletin boards and exhibits	5	4	3	2	1
20. Individualizing instruction	5	4	3	2	1
21. Conducting field trips	5	4	3	2	1
22. Utilizing resource persons	5	4	3	2	1
23. Employing brainstorming techniques	5	4	3	2	1
24. Employing team teaching techniques	5	4	3	2	1
25. Directing problem solving activities.	5	4	3	2	1
26. Directing shop/lab experiences.	5	4	3	2	1
27. Directing student study	5	4	3	2	1
28. Directing students in instructing other students.	5	4	3	2	1
29. Employing technique of stimulation	5	4	3	2	1

(over)

	EXCELLENT	GOOD	FAIR	POOR	NOT AT ALL
30. Employing technique of role playing.	5	4	3	2	1
31. Assessing student skill in shop/lab.	5	4	3	2	1
32. Assessing student knowledge in classroom	5	4	3	2	1
33. Assessing important student attitudes	5	4	3	2	1
34. Determining student grades.	5	4	3	2	1
35. Conducting followup study to evaluate program effectiveness.	5	4	3	2	1
36. Evaluating instructional effectiveness.	5	4	3	2	1
37. Organizing and maintaining the vocational classroom	5	4	3	2	1
38. Oraginzing and maintaining the vocational laboratory	5	4	3	2	1
39. Establishing and maintaining a filing system	5	4	3	2	1
40. Establishing and maintaining a student progress record	5	4	3	2	1
41. Providing for the safety/first aid needs of the students.	5	4	3	2	1
42. Managing equipment and supplies	5	4	3	2	1
43. Projecting instructional resource needs	5	4	3	2	1
44. Arranging for expanding facilities	5	4	3	2	1
45. Communicating with students, teachers, administrators, laymen	5	4	3	2	1
46. Determining needs and interests of students	5	4	3	2	1
47. Relating to students to facilitate learning	5	4	3	2	1
48. Assisting students in developing self discipline	5	4	3	2	1
49. Employing reinforcement techniques in interpersonal relations	5	4	3	2	1
50. Demonstrating positive interpersonal relations within the school system.	5	4	3	2	1
51. Maintaining an occupational advisory committee	5	4	3	2	1
52. Sponsoring the student vocational organization	5	4	3	2	1
53. Helping students secure jobs or further education	5	4	3	2	1
54. Utilizing student personnel services or outside agencies to meet student needs	5	4	3	2	1
55. Expressing and displaying a personal philosophy consistent with the principles of vocational education	5	4	3	2	1
56. Utilizing opportunities for professional growth (professional organizations, etc.)	5	4	3	2	1
57. Developing a plan to keep up-to-date in the occupational specialty	5	4	3	2	1

APPENDIX F

COMPETENCY RATING FORM

COMPETENCY RATING FORM

Listed below are the teaching and related skills in the pilot CBITE project. In order to further refine and verify these competencies, you are asked to: (1) rate the importance of each competency to an industrial education instructor at the Rank III level and (2) identify those competencies needed immediately by the instructor upon entering the class and lab, and therefore should be included in future preservice programs for instructors right out of industry.

Read each item carefully and:

(1) Rate each item as to its importance to a Rank III (first three years of teaching) industrial education instructor (1 = Not important; 6 = Very important).

(2) Place a check mark (✓) in the blank to the right of those skills that are needed immediately by the beginning industrial education instructor and should therefore be included in future preservice programs.

(3) In the blank spaces provided at the end of each section, add any additional competencies you feel are important to the Rank III industrial education instructor but are not included on the instrument.

	Not Important					Very Important	Should be included in preservice program (✓)
Preparation for Instruction							
1. Analyze an occupation to determine what should be taught	1	2	3	4	5	6	_____
2. Identify and write instructional objectives	1	2	3	4	5	6	_____
3. Plan a unit of instruction	1	2	3	4	5	6	_____
4. Write a lesson plan.	1	2	3	4	5	6	_____
5. Select an appropriate teaching method.	1	2	3	4	5	6	_____
6. Select and obtain instructional materials (texts, media, etc.)	1	2	3	4	5	6	_____
7. Prepare instructional materials (handouts, transparencies, etc.).	1	2	3	4	5	6	_____
8. Develop a complete course of study.	1	2	3	4	5	6	_____
_____	1	2	3	4	5	6	_____
_____	1	2	3	4	5	6	_____
Presentation of Instruction							
9. Demonstrate a skill	1	2	3	4	5	6	_____
10. Present a related lesson (theory, information, etc.).	1	2	3	4	5	6	_____
11. Employ oral questioning techniques.	1	2	3	4	5	6	_____
12. Present information with illustrated talk	1	2	3	4	5	6	_____
13. Conduct group discussions	1	2	3	4	5	6	_____
14. Present information with chalkboard	1	2	3	4	5	6	_____
15. Present information with overhead projector.	1	2	3	4	5	6	_____
16. Present information using models/real objects	1	2	3	4	5	6	_____
17. Present information with films	1	2	3	4	5	6	_____
18. Present information with filmstrips/slides	1	2	3	4	5	6	_____

(over)

	Not Important					Very Important	be included in pre-service program (✓)
19. Illustrate with bulletin boards and exhibits	1	2	3	4	5	6	
20. Individualize instruction.	1	2	3	4	5	6	
21. Conduct field trips.	1	2	3	4	5	6	
22. Utilize resource person	1	2	3	4	5	6	
23. Employ brainstorming techniques.	1	2	3	4	5	6	
24. Employ team teaching	1	2	3	4	5	6	
_____	1	2	3	4	5	6	
_____	1	2	3	4	5	6	
Application of Learning							
25. Direct problem solving activities	1	2	3	4	5	6	
26. Direct shop/laboratory experience	1	2	3	4	5	6	
27. Direct student study	1	2	3	4	5	6	
28. Direct students in instructing other students	1	2	3	4	5	6	
29. Employ technique of simulation	1	2	3	4	5	6	
30. Employ technique of role playing	1	2	3	4	5	6	
_____	1	2	3	4	5	6	
_____	1	2	3	4	5	6	
Evaluation of Learning							
31. Assess student skill in shop/laboratory	1	2	3	4	5	6	
32. Assess student knowledge in classroom.	1	2	3	4	5	6	
33. Assess important student attitudes	1	2	3	4	5	6	
34. Determine student grades	1	2	3	4	5	6	
35. Conduct follow-up study to evaluate program effectiveness	1	2	3	4	5	6	
36. Evaluate your instructional effectiveness	1	2	3	4	5	6	
_____	1	2	3	4	5	6	
_____	1	2	3	4	5	6	
Class/Lab Management							
37. Organize and maintain the vocational classroom.	1	2	3	4	5	6	
38. Organize and maintain the vocational laboratory	1	2	3	4	5	6	
39. Establish and maintain a filing system	1	2	3	4	5	6	
40. Establish and maintain a student progress record	1	2	3	4	5	6	
41. Provide for the safety/first-aid needs of vocational students.	1	2	3	4	5	6	
42. Manage equipment and supplies	1	2	3	4	5	6	
43. Project instructional resource needs	1	2	3	4	5	6	
44. Arrange for expanding facilities	1	2	3	4	5	6	
_____	1	2	3	4	5	6	
_____	1	2	3	4	5	6	

Human Relations	Not Important					Very Important	Should be included in pre-service program (✓)
45. Communicate with students, other teachers, administrators, laymen	1	2	3	4	5	6	_____
46. Determine needs and interests of students	1	2	3	4	5	6	_____
47. Relate to students to facilitate learning	1	2	3	4	5	6	_____
48. Assist students in developing self-discipline	1	2	3	4	5	6	_____
49. Employ reinforcement techniques in interpersonal relations.	1	2	3	4	5	6	_____
50. Demonstrate positive interpersonal relations within the school sysyem	1	2	3	4	5	6	_____
51. Maintain occupational advisory committee.	1	2	3	4	5	6	_____
52. Sponsor the student vocational program	1	2	3	4	5	6	_____
53. Help students secure job or further education	1	2	3	4	5	6	_____
54. Utilize student personnel services or outside agencies to meet student needs.	1	2	3	4	5	6	_____
_____	1	2	3	4	5	6	_____
_____	1	2	3	4	5	6	_____

Professional Role							
55. Express and display a personal philosophy consistent with the principles of vocational education	1	2	3	4	5	6	_____
56. Utilize opportunities for professioanl growth, i.e., professional organizations, etc.	1	2	3	4	5	6	_____
57. Develop a plan to keep up-to-date in the occupational specialty	1	2	3	4	5	6	_____
_____	1	2	3	4	5	6	_____
_____	1	2	3	4	5	6	_____

Below are statements concerning the overall CBITE project. Please read each statement and circle the response to the right that best reflects your feelings. SA (Strongly Agree); A (Moderately Agree); D (Moderately Disagree); SD (Strongly Disagree).

58. The 3 week summer preservice workshop was effective in aiding the instructor(s) in mastering the teaching skills needed immediately	SA	A	D	SD
59. The 3 week workshop was not long enough to effectively equip instructors with entry level teaching skills.	SA	A	D	SD
60. The competencies included in the CBITE project actually reflect the real needs of Rank III Industrial Education instructors	SA	A	D	SD
61. The inservice phase of the project during 1976-77 was effective in aiding instructors master the teaching skills needed during the year.	SA	A	D	SD
62. Visits by the teacher educator were effective in aiding the instructor in mastering competencies	SA	A	D	SD
63. The teacher educator effectively evaluated the instructor's mastery of competencies during visits	SA	A	D	SD
64. The resource person was effective in helping the instructor to master competencies.	SA	A	D	SD

(over)

65. The resource person was effective in evaluating the instructor's mastery of competencies. . . . . SA A D SD

66. The modules were <u>not</u> effective in aiding the instructor in mastering competencies. . . . . SA A D SD

67. Traditional university courses would have aided the instructor <u>more</u> than the CBITE project . . . . . SA A D SD

APPENDIX G

LETTER TO TEACHER EDUCATORS

UNIVERSITY OF SOUTH FLORIDA
TAMPA • ST. PETERSBURG • FORT MYERS • SARASOTA

COLLEGE OF EDUCATION
TAMPA, FLORIDA 33620
813: 974-2100

April 10, 1977

M E M O R A N D U M

TO: Phase III CBITE Teacher Educators

FROM: Bill Blank

As was requested during the April 14 CBITE meeting, I have developed an instrument for students to use to evaluate the performance of instructors in the CBITE program. The items on the instrument correspond to competencies included in the CBITE project with two exceptions. First, all statements are worded at the students' level and second, several competency statements covering competencies that would not be evident to students (i.e. conducts followup study) are ommitted.

Enclosed are multiple copies of the Instructor Rating Form for Students and copies of instructions for administering the instrument. It is recommended that you or the resource person administer the instrument to the students rather than the instructor himself. You may want to call your participants and resource persons and alert them to this evaluation and send the forms directly to resource persons if you do not have a visit scheduled in the next week or two. Please ask the resource person to administer the instrument to as many of the instructor's students as possible, collect the completed instruments and mail them directly to me in the envelope provided. If you have any questions please call me at 8-574-2100 ext. 240. It is important that the instrument be administered as soon as possible. Additional evaluation instruments for for participants, resource persons, teacher educators and administrators, and supervisors will follow.

THE UNIVERSITY IS AN AFFIRMATIVE ACTION EQUAL OPPORTUNITY INSTITUTION.

APPENDIX H

INSTRUCTIONS FOR ADMINISTERING INSTRUCTOR

RATING FORM

INSTRUCTIONS FOR ADMINISTERING INSTRUCTOR RATING FORM

This Instructor Rating Form is designed to determine how well, in the eyes of the students, instructors involved in the CBITE project are performing the competencies included in the project. Each instructor will receive a printout summerizing students' ratings for each item. This data should prove valuable to the instructor in improving his instruction.

In order to get data that is reliable as possible, please follow these procedures in administering the instrument to the students.

1. The instrument is to be administered to the instructor's students.

2. Administer the instrument in the absence of the instructor. If you are not available to administer the instrument to a particular class, arrange for the director, principal, supervisor, or other teacher to administer the rating form.

3. Explain to the students that the instructor has voluntarily participated in this project designed to make him a better teacher and that this evaluation in no way affects their grades or the instructor's status within the school. The results of the evaluation will be utilized to determine how effective the pilot training program was and to give feedback to the teacher for improving his instruction.

4. Tell students not to put their names on the forms.

5. Ask the students to take the rating form seriously and to read each item and rate the instructor as to his level of performance on each item.

6. Explain the 5 point rating scale (see form).

7. If the students have questions about what an item means, have them raise their hand and then you may answer their questions individually.

8. When the students complete the form completely, have them deposit them in the envelope provided.

9. Return the forms to the university teacher educator or other location as arranged previously.